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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/328,183	06/08/1999	OVERTON L. PARISH IV	27889-00037	6471

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EXAMINER

ATKINSON, CHRISTOPHER MARK

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 02/23/2004

39

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/328,183

Applicant(s)

Parish et al.

Examiner

A. K. H. son

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/12/03 & 7/22/03
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-13 and 21-38 is/are pending in the application.
- 4a) Of the above, claim(s) 5, 7 and 12-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-4, 6, 8-11 and 14-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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Response to RCE and Amendment

Applicant's arguments filed 11/12/2003 have been fully considered but they are not persuasive.

Claims 5, 7 and 12-13 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 11. Claims 5, 7 and 12-13 do not read on the elected species but rather on non-elected species B.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C.

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§ 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 1, 3, 6, 21, 25-26, 29-32 and 37 are rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Hamilton et al. ('558).

The patent of Hamilton et al. ('037), in at least figures 3 and 12, discloses all the claimed features of the invention with the exception of the member being metal. It would have been an obvious matter of design choice to have the member being the claimed size, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (8-9, 27-28, 33 and 38 CCPA 1955).

The patent of Hamilton et al. ('558), in column 2, lines 30-32, discloses that it is well known in the heat transfer art to have a heat exchanger/member made from metal for the purpose of efficiently removing heat from a heat generating device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hamilton et al. ('037) a heat exchanger/member made from metal for the purpose of efficiently removing heat from a heat generating device as disclosed in Hamilton et al. ('558).

Claim 4 is rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Hamilton et al. ('558) as applied to claims 1, 3, 6, 21, 25-26, 29-32 and 37 above, and further in view of applicant's omission of known/convention prior art.

The patent of Hamilton et al. ('037) as modified, discloses all the claimed features of the invention with the exception of a plated metal.

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Applicant's omission of known/convention prior art in his specification on page 7 discloses that it is known to have a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger. The material being metal is considered to be an obvious design expedient. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hamilton et al. ('037) as modified, a second material between the heat exchanger and the component for the purpose of reducing thermal resistances and attaching the component to the heat exchanger as known by applicant's omission of known/convention prior art.

Claims 8-9, 27-28, 33 and 38 are rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Benson et al. The patent of Hamilton et al. ('037) discloses all the claimed features of the invention with the exception of a fin. It would have been an obvious matter of design choice to have the member being the claimed size, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

The patent of Benson et al., in figure 6, discloses that it is known to have a fin in micro tubes for the purpose of increasing the heat transfer efficiency of the micro tube. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hamilton et al. ('037) a fin for the purpose of increasing the heat transfer efficiency of a

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micro tube as disclosed in Benson et al.

Claims 10-11 are rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Benson et al. as applied to claims 8-9, 27-28, 33 and 38 above, and further in view of Hamilton et al. ('558) as applied to claims 1, 3, 6, 21, 25-26, 29-32 and 37 above.

Claims 22-23 are rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Hamilton et al. ('558) as applied to claims 1, 3, 6, 21, 25-26, 29-32 and 37 above, and further in view of Fox et al.

The patent of Hamilton et al. ('037) as modified, discloses all the claimed features of the invention with the exception of a printed circuit board.

The patent of Fox et al., in figures 4-6, discloses that it is known to have heat generating devices attached to a printed circuit board for the purpose of electrically connecting the devices to a common power source. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hamilton et al. ('037) as modified, heat generating devices attached to a printed circuit board for the purpose of electrically connecting the devices to a common power source as disclosed in Fox et al.

Claim 24 is rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Benson et al. as applied to claims 8-9, 27-28, 33 and 38 above, and further in view of Fox et al. as applied to claims 22-23 above.

Claims 34 and 36 are rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Hamilton et al. ('558) as applied to claims 1, 3, 6, 21, 25-26, 29-32 and 37

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above, and further in view of Wright et al.

The patent of Hamilton et al. ('037) as modified, discloses all the claimed features of the invention with the exception of the claimed diameter.

The patent of Wright et al. discloses that it is known to have the claimed diameter for the purpose of effectively transferring heat and facilitating extrusion. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Hamilton et al. ('037) as modified, the claimed diameter for the purpose of effectively transferring heat and facilitating extrusion as disclosed in Wright et al.

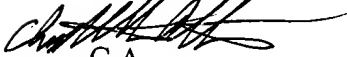
Claim 35 is rejected under 35 U.S.C. § 103 as being unpatentable over Hamilton et al. ('037) in view of Benson et al. as applied to claims 8-9, 27-28, 33 and 38 above, and further in view of Wright et al. as applied to claims 34 and 36 above.

Response to Arguments

Applicant's concerns directed toward Hamilton et al. ('037) are not found persuasive. See at least figures 12 and 13 which teaches cavitied/opened/voided inlet (18) and outlet (20) manifolds/end caps fluidly communicating and attached to the inlets and outlets of the micro tubes (16).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.



C.A.

CHRISTOPHER ATKINSON
PRIMARY EXAMINER

February 19, 2004